

REMARKS

The application includes claims 1, 3-10, and 20-25 prior to entering this amendment. Claims 23-25 have been cancelled. Claims 26-34 have been added. Claims 1, 3-10, and 20-22, and 26 remain in the case after entering this amendment. No new matter has been added. Reconsideration is requested.

Specification Objections

The examiner objects to the specification under 37 CFR 1.71 stating it is not understood how the divider 70 can rotate within the vacuum shaft 60. The Examiner states that it is unlikely that the divider is stationary and the shaft rotates around the divider.

Page 6, lines 1-6 describe how the air suction portion of the vacuum shaft 60 can be repositioned by rotating the fins 72 inside shaft 60. This reference is not intended to suggest that the shaft 60 rotates about the divider 70 during operation. This description is simply indicating that the divider 70 prior to operation can be manually moved or realigned into different stationary positions within the shaft 60 prior to operation. For example, the divider 70 may be removed from the shaft 60 and then realigned and reinserted into a different stationary position inside of shaft 60. This is described in the specification on page 6 starting at line 3 where it is explained that the air suction portion can be moved more toward the top front or more toward the top rear of the shaft 60.

The specification on page 6 is correct in stating that the divider 70 can be rotated within the shaft 60 to realign the air suction chamber. However, this is performed as stated above manually prior to operation. Accordingly, the specification is allowable 37 CFR 1.71.

Claim Withdrawals

The examiner proposes the withdrawal of claims 23-25 from consideration as being directed to a non-elected invention. Claims 23-25 have been cancelled.

Claim Rejections Under 35 U.S.C. § 112

The examiner rejects claims 4 and 20 under 35 U.S.C. § 112, first paragraph. The examiner states that the specification does not describe output holes that block air. Claims 4 and 20 have been amended to remove the reference objected to by the examiner.

The examiner rejects claims 3-5 and 20-22 under 35 U.S.C. § 112, second paragraph and states that it is not understood how input holes can suck air. Claims 3-5 and 20-22 have been amended to recite a vacuum that sucks air through holes. Accordingly, 3-5 and 20-22 are allowable under 35 U.S.C. § 112.

Claim Rejections Under 35 U.S.C. § 102

The examiner rejects claims 1, 3-7, and 20-22 under 35 U.S.C. § 102(b) as being anticipated by Gilmore (U.S. Patent 4,789,068).

Claim 1 has been amended to recite:

multiple elongated screen members aligned along a separation screen frame that rotate in a direction causing material to move along the material separation screen, the multiple elongated screen members having a shape and spacing so that substantially rigid materials are carried over a top portion of the material separation screen while non-rigid or semi-rigid material slide down between adjacent ones of the multiple elongated screen members;

at least one vacuum member aligned co-linearly with the elongated screen members wherein the vacuum member includes a hollow elongated stationary tube having holes;

a divider that inserts into the elongated tube and forms a first chamber that maintains constant alignment with a same first set of the holes in the tube while the material is carried over the material separation screen; and

a vacuum attached to the first chamber formed in the elongated tube by the divider, the vacuum generating a constant negative air flow through the first set of holes sucking the non-rigid or semi-rigid material down between the vacuum member and an adjacent co-linear elongated screen member while the substantially rigid materials continue to be carried over the top portion of the material separation screen.

Gilmore does not disclose *multiple elongated screen members aligned along a separation screen frame that rotate in a direction causing material to move along the material separation screen, the multiple elongated screen members having a shape and spacing so that substantially*

rigid materials are carried over a top portion of the material separation screen while non-rigid or semi-rigid material slide down between adjacent ones of the multiple elongated screen members.

Gilmore describes a system for separating different sized wood chips (col. 1, line 34 - col. 2, line 5). There is no suggestion in Gilmore of separating rigid materials from non-rigid or semi-rigid materials as recited in claim 1. All of the wood chips in Gilmore have a similar rigidity and therefore would only have spacing's between screens disks 18 that separate the wood chips according to size (see FIG. 2, and col. 2, lines 27-31).

Because some rigid, semi-rigid, and non-rigid materials may have similar sizes or shapes, Gilmore's sized based separation screen could not operate as recited in claim1.

Regardless, claim 1 has also been amended to recite:

at least one vacuum member aligned co-linearly with the elongated screen members wherein the vacuum member includes a hollow elongated stationary tube having holes. This is clearly shown in FIGS. 2-4.

The air separator 22 in Gilmore is not co-linearly aligned with the screen members 16 (see FIG. 1). Conversely, the air separator 22 is located below the screen 16. Further, the screen 34 for the air separator 22 in Gilmore is not stationary as recited in claim 1 but conversely rotates in a direction 36 as shown in FIG. 4.

Claim 1 also recites:

a divider that inserts into the elongated tube and forms a first chamber that maintains constant alignment with a same first set of the holes in the tube while the material is carried over the material separation screen.

This is clearly shown as divider 70 in FIGS. 3 and 4 and described in the specification at page 5, starting at line 15 where the divider 70 maintains a tight abutment with the inside walls of the vacuum shaft 60 and is aligned with a first same set of holes in vacuum shaft 60 while materials 46, 58, 56 are carried over the screen 42.

Conversely, the manifold 24 in Gilmore and the inlet 26 in manifold 24 never maintain constant alignment with any one particular set of holes in screen 34. This is because the screen 34 is constantly rotated in direction 36.

Claim 1 also recites a vacuum attached to the first chamber formed in the elongated tube by the divider, the vacuum generating a constant negative air flow through the first set of holes

sucking the non-rigid or semi-rigid material down between the vacuum member and an adjacent co-linear elongated screen member while the substantially rigid materials continue to be carried over the top portion of the material separation screen. This is clearly shown by the screen 42 in FIG. 2 and the vacuum 78 in FIG. 3.

Gilmore describes a vacuum 28. However, vacuum 28 never generates a constant negative air flow through a same first set of holes in the screen 34. Conversely, the set of holes in screen 34 of Gilmore that are aligned with the manifold opening 26 constantly change as the screen 34 rotates about manifold 24. Thus, Gilmore cannot provide a *constant negative air flow through the first set of holes* as recited in claim 1.

The openings in the screen 34 in Gilmore also do not *suck non-rigid or semi-rigid material down between the vacuum member and an adjacent screen member while the substantially rigid materials continue to be carried over the top portion of the material separation screen* as also recited in claim 1.

First, the air separator 22 as shown in FIG. 1 in Gilmore is not located next to an adjacent shaft 19 of the disc screen 16 and therefore cannot suck anything *down between the vacuum member and an adjacent screen member* as recited in claim 1, much less *non-rigid or semi-rigid materials*. As explained above, the system in Gilmore is used for separating wood chips according to size, not for separating materials of different rigidities as recited in claim 1.

For these reasons, claim 1 is allowable under 35 U.S.C. § 102(b) over Gilmore. Claim 20 includes at least some of the same elements as claim 1 and is therefore allowable for at least some of the same reasons.

Claim 3 recites the divider as *forming a second chamber in the tube below the first chamber that maintains a constant alignment with a second same set of the holes in the tube that are located below the first set of holes, the vacuum attached to the second chamber and generating a positive air flow that blows air out through the second set of holes.* This is clearly shown as positive air flow 64 in FIGS. 2-4.

Nowhere does Gilmore describe generating a second positive air flow in a second chamber of the air separator 22. Only one single air flow 32 is generated by the vacuum 28 in Gilmore (see FIG. 4).

Claim 4 recites the divider as *including multiple fins that extend radially out from a center hub*. Gilmore only describes a circular manifold 24 and does not suggest a divider with multiple fins as recited in claim 4.

Claim 5 recites *the divider is sized to provide a relatively tight rigid abutment against an inside wall of the tube*. This again is described in the specification at page 5, lines 16 and also clearly shown in FIGS. 3 and 4. Conversely, the manifold in Gilmore can never tightly or rigidly abut against the inside wall of screen 34 because the screen 34 has to rotate around the manifold 24.

Accordingly, claims 3-5 are also allowable over the art cited by the Examiner.

Conclusion

For the foregoing reasons, reconsideration and allowance of the claims of the application as amended is requested. The examiner is encouraged to telephone the undersigned at (503) 224-2170 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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